

WHAT IS CLAIMED IS:

## 1. A battery comprising:

a battery can;

a negative electrode plate for battery, said negative electrode plate having a paste-like material which contains an active material and which is provided on the entire surface of a rectangular conductive porous substrate including edge portions extending along long sides of the substrate, said negative electrode plate being wound in a cylindrical shape to be inserted into said battery can; and

a plate-shaped collector having ribs formed by raising part thereof, said ribs being resistance-welded to one of said edge portions of said conductive porous substrate while said paste-like material provided on said edge portions.

2. A battery as set forth in claim 1, wherein said plate-like collector has cut-out portions which are formed so as to extend in a radial direction inwardly from a periphery thereof, said ribs being formed by raising part thereof along both of radially extending edges of each of said cut-out portions.

3. A battery as set forth in claim 1, wherein  $0.25 < R < 2.5$  is satisfied assuming that a specific electrical resistance of said conductive porous substrate is  $r_b$ , a thickness of said conductive porous substrate being  $t_b$ , a ratio  $r_b/t_b$  of  $r_b$  to  $t_b$  being  $R_b$ , a specific electrical resistance of said plate-like collector being  $r_c$ , a thickness of said plate-like collector being  $t_c$ , a ratio  $r_c/t_c$  of  $t_c$  to  $r_c$  being  $R_c$ , and a ratio  $R_c/R_b$  of  $R_c$  to  $R_b$  being  $R$ .

4. A battery as set forth in claim 3, wherein said conductive porous substrate is made of a steel,  $t_b$  being

in the range of from about 60  $\mu\text{m}$  to about 80  $\mu\text{m}$ , said plate-like collector being made of iron or nickel, and tc being in the range of from about 150  $\mu\text{m}$  to about 200  $\mu\text{m}$ .

5. A battery as set forth in claim 1, wherein said conductive porous substrate is made of a punching metal.

6. A negative electrode plate for a battery, wherein a paste-like material containing an active material is provided on the entire surface of a rectangular conductive porous substrate including an edge portion extending along a long side thereof, said negative electrode plate being wound in a cylindrical shape to be inserted into a battery can to be used a part of a better.